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uma T

Periyar University, bktuma@gmail.com

kavitha E.S Dr

Periyar University, kavithaesk@gmail.com

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Awareness and Utilization of ICT among Undergraduate Students of Government Dental College, Trivandrum, Kerala District

T.Uma 1 and Dr.E.S.Kavitha 2

1 Research Scholar, Department of Library and Information Science,

2 Assistant professor, Department of Library and Information Science,
Periyar University, Salem.

ABSTRACT

This paper has made an attempt to explore the awareness and utilization of Information and Communication Technology (ICT) among undergraduate students of Government Dental College in Thiruvananthapuram, Kerala District. The required data were gathered from the Government Dental College in Thiruvananthapuram, Kerala District. a total number of 100 questionnaire were distributed and 62 filled questionnaires were collected back. The results of the study show that 60 dental students visit their college library to study, information gathering, and searching, 91.94 per cent of the undergraduate dental student has expert level proficiency in presentation tools and problems in usage of ICT tools exam pressure, Frequency of visit to library has a significant difference with average time spent in library per visit by the dental students as their significance values are lesser than the threshold value of 0.05.

Keywords: ICT, Government Dental College, Thiruvananthapuram, Kerala, undergraduate students.

Introduction

In the electronic environment, human activities have drastically changed in all walks of life owing to information and communication technology (ICT). So, library and information centre and research and documentation (R&D), and other academic institutions are not exception in this scenario. The library activities such as circulation, acquisition, collection management, reference service, documentation service, information search technique, and retrieval of information etc also have changed significantly. Recently, Libraries are facing with a new generation of users who are knowledge and ability in technologically. According to Berners-Lee et al (1992), ‘‘the present scenario the quickest library services are more approachable through the internet and World Wide Web’’. Therefore, to provide and facilitate information to the right users at anytime from anywhere in the right way (Fischer, 2012) is feasible using information and communication technologies in the electronic settings.

Library uses different kinds of information technologies to provide information to its user community. There are some of the ICT enabled tools which are used for various communication purposes such as communication technology, telecommunication technology includes emails, voice mail, telephone, fax, videoconferencing, and internet; remote control technology used for online sharing, web conference, desktop sharing, online meeting, and file transfer to one computer to others. Social media is the recent and fastest technology which is also used effective way in the library and includes Facebook, Twitter, Blogs and even whatsapp groups have used to share information in quickest way. moreover, RFID Technology, quick Response (QR) code, closed-circuit television (CCTV) are also ICT Tools which are used in library as library security for online reading materials like PDF, HTML, audio and video cassettes, CDs. pamphlets, electronic theses etc which are available in the library depending on computer and internet.

Profile of Government Dental College, Trivandrum

In India, the government of Dental College of Thiruvananthapuram is one the pioneering institutions imparting education. In 1959, the Dental College wing for undergraduate courses of Medical College, Thiruvananthapuram was started. Later, the dental college was shifted to one of the two buildings which are known as the old block in 1962. It is accredited from Dental Council of India and it is affiliated to University of Kerala. GDC offers 11 courses across 1 stream namely dental and the postgraduate courses began in 1966. According to Wikipedia (2020), dental colleges in Kerala are found that a total number of 25 dental colleges are there. Out of 25,

five colleges are from government, one dental college from government sponsored self-financing, and the majority of 19 dental colleges are private self-financing in Kerala. Out of five government dental colleges, it has been chosen only one government college i.e. Dental College of Thiruvananthapuram for the present study.

Related Literature

A number of research scholars and eminent scientists have already written number of research papers in the field of ICT and published. But the researchers have taken the recent previous studies for the current study. Alagu and Thanuskodi (2018) aimed to investigate the students' awareness and use of information and communication technology (ICT) in the rural areas at Dindigul district. To gather required data, structured questionnaire were distributed to 150 students randomly. For analysis purpose, the descriptive technique with SPSS version 23 software was used. The results showed that most of the students using ICT for their academic purposes such as assignments, exam preparation, and updating their subject knowledge etc. It is found through the analysis and recommended that there was a need to improve the access of ICT resources by the students by way of training programs during the period of study.

Anunobi (2015) examined a study to found out the use of ICT among student-teachers in Universities in North Central Nigeria. The main purpose of this research was to know about the usage of ICT between students and teachers and investigate the areas of specialization on student-teachers use of ICT. The research was descriptive and survey method used in which well designed questionnaire distributed to collect required information from the respondents. A total number of 638 filled questionnaires were returned. The finding of the study showed that the average level of ICT used by student-teachers in North Central Nigeria and there was no significant difference found in the level of ICT use of male and female student-teachers during the survey.

Atonring (2015) studied on information and communication technology (ICT) infrastructure in the university libraries of Tamilnadu. The findings of the study revealed that ICT applications in Indian university libraries were not achieved successfully due to lack of library budget, lack of training programs, and lack of skilled library professionals. Hence, this study recommended that to run the library with effective ICT facilities, skilled library staff should be appointed with proper training in ICT. Jebamalar (2013) conducted a survey to know about the usage of ICT based resources and facilities and services. It is examined a total number of 179 research scholars were participated from the Arts and Science Colleges which were affiliated to Manonmaniam Sundaranar University. It is found that out of 179 research scholars, 31.84% of them faced slow speed of ICT based resources like computers and internet etc during the research period.

Ansari (2013) examined the information and communication technology (ICT) skills among the library professionals at the Universities in Karachi. For the purpose of analysis, among the four government universities and eight private universities were involved. To collect data, a well-

designed questionnaire were distributed among the respondents and the questionnaire includes gender, age, type of university, qualifications, experience, use of computers, software development, system analysis, and networking etc. The results of the study revealed that out of 53 respondents, 58.49% of them were public universities, 41.50% were from private universities. It is noted that most of the respondents were found from driver installation as moderate proficient with mean value was 3.075. It is also noted that two universities were fully automated, twelve were partially automated, and two were not automated.

Jude and Dankaro (2012) carried out a study on the use of ICT by teachers in College of Education Katsina-Ala, Benue at Nigeria. The main aim of this research was to identify the availability of ICT based resources and services in College of Education. The findings revealed that the majority of 87.5% of the teachers had no facility in terms of computers or Laptops in their College. Most of the teachers (95.0%) had their own personal computers or Laptops. It is also noted that the major respondents i.e. 82.5% of the teachers had no online based services in their office. The huge number of 82.5% of the teachers did not watch television, Ninety percent of the teachers not using radio and also 82.5% of them not using power point presentations during the study.

Satpathy and Rout (2010) investigated to identify the online based resources and their utilization among the faculty members of CVRCE at Bhubaneswar. Based on the findings, the results showed that 46% of the faculties had excellent knowledge in computers. 98% of them were well aware about electronic resources and 32.5% of the respondents felt that they knew online resources through library staff members. It is also found that majority of 58% of the respondents accepted that online resources were most useful than print media.

Haneefa (2007) conducted a survey on the use of ICT based resources and services in special libraries at Kerala. For data analysis, selected 30 libraries were chosen to survey. The participated libraries include Central and State government, and Central and State government autonomous. a total number of 1431 questionnaire were distributed and out of 1431, 1017 filled questionnaire received at the rate 62.1%. The results revealed that majority of 65.6% of the respondents access the emails from the library. Nearly 60% of the respondents were widely used Internet, and followed by 45.4% of the respondents used e-journals, CD ROMs (41.4%), OPAC (41.6%). The study found 49.7% of the users were not satisfied with existing ICT resources in their libraries.

Jeevan and Nair (2004) analyzed the Information Technology adoption in Libraries of Kerala with selected libraries in Trivandrum. Through the well-structured questionnaire, that the data was collected from selected 25 institutional libraries in Trivandrum. The results showed that the library professionals satisfied with ICT tools and resources as to manage library works every day. But, during the study periods the respondents faced some problems that insufficient funds, lack of trainings, lack of skilled professionals etc.

Need for the study

Based on the previous studies, it is seen that there was a very little amount of research have been carried out in the use of Information and Communication Technology (ICT) by dental college undergraduate students. This study tried to highlight the awareness and use of ICT among the undergraduate students of Government Dental College in Thiruvananthapuram. The students include rural, semi-urban, and urban students as well as to several national and International students.

Objectives of the study

The main purpose of this study is to identify the awareness and use of ICT among the undergraduate student of government Dental College at Trivandrum, Kerala District. The other objectives are:

- ❖ To find analyse the socio-economic profile of the respondents
- ❖ To know about the use pattern of ICT among the undergraduate students
- ❖ To examine the proficiency of undergraduate dental students in ICT tools.
- ❖ To face the problems of using ICT facilities among the undergraduate students

Hypotheses

1. There is no relationship between age the undergraduate dental students and proficiency in usage of ICT Technologies.
2. There is no relationship between gender the undergraduate dental students and proficiency in usage of ICT Technologies.
3. There is no relationship between frequency of visit to library the undergraduate dental students and proficiency in usage of ICT Technologies.

Research Methodology

To meet the above objectives, the required data was collected from the government dental college at Trivandrum. This study descriptive based survey with questionnaire method has been chosen for data analysis. A well-designed questionnaire distributed among the 100 undergraduate students and 62 filled questionnaires were returned at the rate of 62%. The questionnaire includes gender profile, use of computers, frequency of internet usage, use of ICT based library sources and services, ICT literacy of undergraduate students, problems faced while using ICT facilities, level of satisfaction etc. For analysis, various quantitative techniques and tools were used using SPSS version 20.

RESULTS AND DISCUSSION

The demographic characteristics of the undergraduate dental students are presented in the following table

Table 1
Socio-economic profile of the undergraduate dental students

		N	%
Age	Below 22 years	39	62.90
	Above 22 years	23	37.10
		N	%
Gender	Female	37	59.68
	Male	25	40.32
		N	%
Place of birth	Urban area	49	79.03
	Rural area	13	20.97
		N	%
Frequency of visit to library	Daily	17	27.42
	On alternative days	45	72.58
		N	%
Average time spent in library	Less than 15 minutes	52	83.87
	16 - 30 minutes	10	16.13

As regards to the socio-economic profile of the undergraduate dental students 62.90 per cent are in the age group of below 25 years and 37.10 per cent are in the age group of above 25 years. Regarding gender 59.68 per cent of the undergraduate dental students are female and the rest 40.32 per cent are male. 79.03 per cent of the undergraduate dental students are from urban areas and the rest 20.97 per cent are from rural areas. 27.42 per cent of the undergraduate dental students visit their college library on a daily basis and the rest 72.58 visit on alternative days. Regarding average time spent in library per visit 83.87 per cent spend less than 15 minutes and the rest 16.13 per cent spend 16 to 30 minutes per visit.

Table 2
Purpose of using ICT by the undergraduate dental students

S. No	Purpose of visit to library	Number of dental students
1.	To study, information gathering, and searching	60
2.	To watch educational videos	36
3.	For reading newspapers	15
4.	Preparing for assignments	57
5.	To buy products online	2

We can infer from the table that 60 dental students visit their college library to study, information gathering, and searching, 57 of them visit for preparing assignment, 36 of them visit to watch educational videos, 15 of them visit to read newspapers and only 2 of them visit to buy products online.

Table 3
Proficiency in using the following ICT by undergraduate dental students

Sl. No	Proficiency in ICT	Expert	Intermediate	Beginner
1	Word processing	62 (100)	0 (0)	0 (0)
2	Spreadsheets	62 (100)	0 (0)	0 (0)
3	Presentations	57 (91.94)	5 (8.06)	0 (0)
4	Cameras and scanning	38 (61.29)	16 (25.81)	8 (12.90)
5	Using online course material	18 (29.03)	15 (24.19)	29 (46.77)
6	Multimedia applications	34 (54.84)	22 (35.48)	6 (9.68)

We can infer from the above table that all the proficiency level of all the undergraduate dental students regarding word processing and spreadsheets is expert. 91.94 per cent of the undergraduate dental student has expert level proficiency in presentation tools, 46.77 per cent of the undergraduate dental student have beginner level proficiency in using online course material and 54.84 per cent of the undergraduate dental student have expert level proficiency in multimedia applications.

Table 4
Problems in usage of ICT tools by undergraduate dental students

S. No	Problems in usage of ICT tool	Always
1.	Exam pressure	53
2.	Non-availability of sufficient quantity of ICT tools in college	47
3.	Poor upkeep and maintenance of ICT tools	26
4.	Insufficient training on the application of ICT	12

Regarding problems in usage of ICT tools exam pressure, non-availability of sufficient quantity of ICT tools in college, poor upkeep and maintenance of ICT tools and Insufficient training on the application of ICT are the major reasons listed by the respondents

Table 5
Association between the profile of the undergraduate dental students and proficiency in usage of ICT Technologies

S. No	Profile	Chi-square value	Degree of freedom	Asymp. Sig. (2-sided)
1.	Age	3.334	2	.189
2.	Gender	30.412	2	.982
3.	Frequency of visit to library	1.862	2	.000*

* Significant at 5%

From the above it can be inferred that, frequency of visit to library has a significant difference with average time spent in library per visit by the dental students as their significance values are lesser than the threshold value of 0.05. Age and gender do not a significant difference with average time spent in library per visit by the dental students as their significance values are greater than the threshold value of 0.05. Regarding problems in usage of ICT tools exam pressure, non-availability of sufficient quantity of ICT tools in college, poor upkeep and maintenance of ICT tools and Insufficient training on the application of ICT are the major reasons listed by the respondents

Limitations of the study

The following are the limitations of the present study

- The data was collected from undergraduate students of Government Dental College who are with the rural areas of Trivandrum only.
- Data was not gathered from out of other government dental colleges and other private colleges and urban areas of Kerala distract.
- The sample was drawn from the government dental colleges of Trivandrum at Kerala and not included private dental colleges.

Conclusion

Undergraduate dental students use their college library mainly to study, gather information and searching and also for preparing for assignments. All the respondents have proficiency level of expert in word processing and spreadsheets. Frequency of visit to library has a significant difference with average time spent in library per visit by the dental students as their significance values are lesser than the threshold value of 0.05.

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